**Salton Sea Preferred Alternative Work Group Meeting Summary**
**9:30am – 3:00pm**
**October 5, 2006**
**Ontario, California**

**Meeting Attendees:**
US Bureau of Reclamation: Paul Weghorst
US Fish and Wildlife Service: Peggy Bartels; Carol Roberts; Chris Schoneman
US Geological Survey: Doug Barnum
Senator Ducheny's Office: Pat Cooper
Department of Fish and Game: Jack Crayon
Department of Water Resources: Dale Hoffman-Floerke; Charles Keene; Doug Osugi
State Water Resources Control Board: Bart Christensen
Colorado River Basin Regional Water Quality Control Board: Jose Angel
Imperial County: Larry Grogan
Imperial County Farm Bureau: Al Kalin
Coachella Valley Water District: Monica Swartz
California Waterfowl Association: Bill Gaines
Pacific Institute: Mike Cohen
San Diego County Water Authority: Bill Tippets
Salton Sea Authority: Bill Brownlie; Rick Daniels
Imperial Group: Patrick Mahoney; Mike Morgan; Ali Shahroody
CH2M Hill: Gwen Buchholz
Facilitator: Patti Kroen

**Attachments:**
Attachment 1: Meeting Agenda
Attachment 2: Revised Matrix worksheets

**The Work Group discussed the following topics:**
- Pending release of the PEIR:
  - Document release date target is October 16
  - Executive Summary will be available at Advisory Committee Meeting October 24
  - 90-day comment period (to January 15)
  - Public meetings to be held (near sea and outside area) in mid-November
- Use of the matrix and potential to rank the attributes
  - Mandate-driven ranking
  - Information within cells needs to be 'apples to apples' comparisons
    - Quantitative when possible
    - If no difference from which to distinguish the alternatives one from another, maintain a list of these attributes to track that we did consider it.
  - Ranking may be a task to be undertaken at the Advisory Committee level, with the recommendation from the Working Group simply a grouping of

the attributes into mandated 'low, medium, and high' and other considerations, ranked into three categories.
    - While the Working Group made tentative rankings for the attributes, they acknowledged that nothing is cast in stone and attributes and rank could change with release of the PEIR.
    - Would be helpful to identify the level of uncertainty for each attribute.

**Desired Outcomes for the Work Group:**

- Due to the extended comment period, a recommendation is not required by the October 24, 2006 Advisory Committee meeting. The Committee will be provided an update from the Working Group with a recommendation to follow the next Working Group meeting
- Recommend a process by the end of the year to the Advisory Committee to be used by the Secretary to identify a Preferred Alternative
- Develop a tool to organize information for effective decision-making

**Group Agreements - The Work Group agreed to:**

- Rank the attributes into three categories within two sub-sets (Mandated attributes-low, medium, or high, and Other attributes-low, medium, or high). See attached revised attribute matrices for the results of that effort during the meeting.
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**Action Items:**

- Facilitator will 1) revise the attribute matrix as suggested by the Working Group and recorded on flip charts during the meeting, 2) provide the revised matrices to the Work Group for review and comment prior to the next meeting.
- Work Group participants will provide their comments on the matrices provided by the Facilitator for compilation and distribution in advance of the next Work Group meeting.

**Next Meeting: November 20, 2006 9:30am – 3:30pm San Diego**

| Mandated Attributes | Rank | Alt 1 | Alt 2 | Alt 3 | Alt 4 | Alt 5 | Alt 6 | Alt 7 | Alt 8 |
|---|---|---|---|---|---|---|---|---|---|
| Time to achieve biological results – Partial results – mid-implementation | **High** | | | | | | | | |
| Time to achieve biological results - Full Implementation | **High** | **2027** | **2031** | **2023** | **2074** | **2029** | **2031** | **after 2078** | **2027** |
| Type of habitat | **High** | **Saline Habitat Complex** | **Saline Habitat Complex** | **Marine Sea** | **SHC with salinity limits and without cell walls** | **Marine Sea + Saline Habitat Complex** | **Marine Sea + Saline Habitat Complex** | **Marine Sea + Saline Habitat Complex** | **Marine Sea + Saline Habitat Complex** |
| Quantity of habitat | **High** | **38,000 ac** | **75,000 ac** | **61,000 ac** | **88,000 ac** | **62,000 ac + 45,500 ac** | **74,000 ac + 29,000 ac** | **104000 ac + 12,000 ac** | **83,000 ac + 18,000 ac** |
| Diversity of habitat - fish | **High** | **No Marine Sport Fish** | **No Marine Sport Fish** | **Marine Sport Fish** | **No Marine Sport Fish** | **Marine Sport Fish** | **Marine Sport Fish** | **Marine Sport Fish** | **Marine Sport Fish** |
| Diversity of habitat - salinity | **High** | **20,000 to 200,000 mg/L** | **20,000 to 200,000 mg/L** | **20,000 to 40,000 mg/L** | **20,000 to 40,000 mg/L** | **20,000 to 200,000 mg/L** | **20,000 to 200,000 mg/L** | **20,000 to 200,000 mg/L** | **20,000 to 200,000 mg/L** |
| Diversity of habitat - Saline Habitat Complex with islands/snags | **High** | **38,000 ac** | **75,000 ac** | **0** | **88,000 ac** | **45,500 ac** | **29,000 ac** | **12,000 ac** | **18,000 ac** |
| Diversity of habitat – water depths | **High** | **Less than 6 feet with up to 15 foot holes** | **Less than 6 feet with up to 15 foot holes** | **Up to 10 feet** | **Less than 6 feet with up to 15 foot holes** | **Up to 50 feet** | **Up to 50 feet** | **Up to 50 feet** | **Up to 50 feet** |
| Invertebrate abundance/diversity | **High** | | | | | | | | |
| Avian abundance/ diversity (PRBO) | **High** | | | | | | | | |
| Construction disturbance to existing habitat or resources (e.g. | **High** | **600 acres** | **600 acres** | **400 acres** | **400 acres** | **400 acres** | **200 acres** | **200 acres** | **400 acres** |

| Mandated Attributes | Rank | Alt 1 | Alt 2 | Alt 3 | Alt 4 | Alt 5 | Alt 6 | Alt 7 | Alt 8 |
|---|---|---|---|---|---|---|---|---|---|
| seabed, shoreline, cultural) | | | | | | | | | |
| Wildlife disease risk | **High** | Equal | Equal | Equal | Equal | Equal | Equal | Equal | Equal |
| Early start | **High** | | | | | | | | |
| Effects on T&E fish and wildlife - pupfish (others equal) | High | see below | see below | see below | see below | see below | see below | see below | see below |
| ***Effects on movement of species - pupfish*** | High | 5 isolated areas + Salt Creek not connected | 5 isolated areas + Salt Creek not connected | All areas connect in First Ring | 4 isolated areas | 4 isolated areas | All areas connect in Marine Sea except south-east drains isolated | All areas connect in Marine Sea except south-east drains not connected | All areas connect in Marine Sea except Salt Creek not connected |
| Effects due to selenium - birds and fish | **High** | **#2** | **Least - #1** | **#3** | **Worst - #8** | **#7** | **#5** | **#6** | **#4** |
| Effects due to hydrogen sulfide | **High** | **No** | **No** | **Not likely** | **No** | **Maybe** | **Maybe** | **Maybe** | **Maybe** |
| Effects on salinity - will meet design objectives (**Quantify**) | **High** | **Yes** | **Yes** | **Yes** | **Yes - not until 2074** | **Yes** | **Yes** | **No - unless inflows exceed 800,000 af/year** | **Yes** |
| Effects on temperature - will meet design objectives (**Quantify**) | **High** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** |
| Effects on dissolved oxygen - will meet design objectives (**Quantify**) | **High** | **Yes - will be low in morning** | **Yes - will be low in morning** | **Yes - may be delayed** | **Yes - will be low in morning** | **Yes - may be delayed** | **Yes - may be delayed** | **Yes - may be delayed** | **Yes - may be delayed** |
| ***Excavation/ seabed disturbance*** | **High** | | | | | | | | |
| Fugitive dust (construction) (tons/year) | **High** | **99** | **183** | **337** | **74** | **439** | **2,333** | **2,813** | **2,565** |

| Mandated Attributes | Rank | Alt 1 | Alt 2 | Alt 3 | Alt 4 | Alt 5 | Alt 6 | Alt 7 | Alt 8 |
|---|---|---|---|---|---|---|---|---|---|
| Fugitive dust (O&M) (tons/year) | High | **10** | **18** | **34** | **7.4** | **44** | **233** | **281** | **257** |
| ***Fugitive dust (exposed playa) (tons/year)*** | High | **197** | **228** | **329** | **4,101** | **391** | **384** | **2,415** | **217** |
| ***Construction exhaust (Diesel PM10 + $NO_x$) (tons/year)*** | High | **0.2 + 13** | **0.4 + 23** | **49 + 915** | **7 + 131** | **54 + 1,020** | **72 + 1,405** | **45 + 921** | **78 + 1,519** |
| ***O&M exhaust - Diesel PM10 + $NO_x$) (tons/year)*** | High | **0 + 1.3** | **0 + 2.3** | **5 + 92** | **0.7 + 13** | **5 + 102** | **7 + 141** | **5 + 92** | **8 + 152** |
| ***Hazardous air pollutants - based on sea bed disturbance (millions cubic yards)*** | High | **77.14** | **136.53** | **18.81** | **154.215** | **86.77** | **66.97** | **33.522** | **47.23** |
| ***Odorous emissions (water quality related)*** | High | **Possible from algae** | **Possible from algae** | **Possible from algae** | **Possible from algae** | **Possible for awhile** | **Possible for awhile** | **Possible for awhile** | **Possible for awhile** |
| ***Causes erosion, siltation,*** increased runoff, or flooding | **Low** | **No** | **No** | **No** | **No** | **No** | **No** | **No** | **No** |
| ***Structures in 100-yr flood zone - sea bed and all facilities are in flood zone*** | **Low** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** |
| Causes inundation by seiche - compared Brine Sink and Marine Sea to Salton Sea | **Low** | **Maybe - less than No Action Alt** | **Maybe - less than No Action Alt** | **Maybe - less than No Action Alt** | **Maybe - less than No Action Alt** | **Maybe - less than No Action Alt** | **Maybe - less than No Action Alt** | **Maybe - less than No Action Alt** | **Maybe - less than No Action Alt** |

| Mandated Attributes | Rank | Alt 1 | Alt 2 | Alt 3 | Alt 4 | Alt 5 | Alt 6 | Alt 7 | Alt 8 |
|---|---|---|---|---|---|---|---|---|---|
| ***Effects on groundwater quality*** or quantity - will improve groundwater | **Low** | **Yes** | **No** | **No** | **No** | **No** | **No** | **No** | **No** |

| Non-Mandated Attributes | Rank | Alt 1 | Alt 2 | Alt 3 | Alt 4 | Alt 5 | Alt 6 | Alt 7 | Alt 8 |
|---|---|---|---|---|---|---|---|---|---|
| *Recreation Attributes* | | | | | | | | | |
| Fishing | High | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Wildlife watching | High | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Hunting | High | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Substantially change rec opportunities | High | | | | | | | | |
| Motor boating | Med | No | No | Yes | No | Yes | Yes | Yes | Yes |
| Non-motorized boating (canoes, kayaks) | Med | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Non-motorized boating (wind-surfing, sailing) | Med | No | No | Yes | No | Yes | Yes | Yes | Yes |
| Camping | Med | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Swimming | Low | No | No | Yes | No | Yes | Yes | Yes | Yes |
| OHV | Low | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Water skiing | Low | No | No | Yes | No | Yes | Yes | Yes | Yes |
| Recreation Summary Row (suggestion to add summary row s) | | | | | | | | | |
| Economic development opportunities | High | | | | | | | | |
| Recreational Economics | High | | | | | | | | |
| Cost - Capital | High | $2.3 B | $3.3 B | $4.9 B | $2.3 B | $4.5 B | $5.9 B | $5.2 B | $5.8 B |
| Cost - O&M/year | High | $91 M | $107 M | $138 M | $20 M | $134 M | $149 M | $82 M | $145 M |
| Material Availability | High | Yes | Yes | Large rock may not be available in large quantity | Yes | Large rock may not be available in large quantity | Large rock may not be available in large quantity | Large rock may not be available in large quantity | Large rock may not be available in large quantity |

| Non-Mandated Attributes | Rank | Alt 1 | Alt 2 | Alt 3 | Alt 4 | Alt 5 | Alt 6 | Alt 7 | Alt 8 |
|---|---|---|---|---|---|---|---|---|---|
| Compatibility with existing wetlands and refuges | High | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Compatibility with ag land production | High | | | | | | | | |
| Changes to microclimate on southern shoreline (ag) | High | No | No | No | No | No | No | No | No |
| Compatible with geothermal expansion | High | No | No | No | No | No | No | Yes | No |
| Compatible with Tribal land use plans, treaties | High | Yes | No | No | Yes | No | No | No | No |
| Adaptability (e.g. inflow changes) - if flows greater than 717,000 af/year | High | Saline Habitat Complex becomes smaller and Brine Sink becomes larger | Saline Habitat Complex becomes smaller and Brine Sink becomes larger | Brine Sink becomes larger | Saline Habitat Complex becomes smaller and Brine Sink becomes larger | Brine Sink becomes larger | Brine Sink becomes larger | Brine Sink and Marine Sea become larger | Brine Sink becomes larger |
| Adaptability (e.g. inflow changes) - if flows less than 717,000 af/year but greater than 650,000 af/year | High | Brine Sink becomes smaller | Brine Sink becomes smaller | Brine Sink becomes smaller | Brine Sink becomes smaller | Brine Sink becomes smaller | Brine Sink becomes smaller | Brine Sink becomes smaller | Brine Sink becomes smaller |
| Flexible /Adaptable and components that can be staged | High | Saline Habitat Complex - Yes | Saline Habitat Complex - Yes | Marine Sea - No | Saline Habitat Complex - Yes | Saline Habitat Complex - Yes<br><br>Marine Sea - No | Saline Habitat Complex - Yes<br><br>Marine Sea - No | Saline Habitat Complex - No<br><br>Marine Sea - No | Saline Habitat Complex - Yes<br><br>Marine Sea - No |

| Non-Mandated Attributes | Rank | Alt 1 | Alt 2 | Alt 3 | Alt 4 | Alt 5 | Alt 6 | Alt 7 | Alt 8 |
|---|---|---|---|---|---|---|---|---|---|
| Environmental Justice (EJ) - Health effects (bodily impairment, infirmity, illness or death | High | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| EJ - High exposure to hazards (risk or rate of) | High | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Visuals – degrade character, quality Or scenic vistas 2030, 2078 | High/Med | Yes - slight change until after 2017 | Yes - slight change until after 2017 | Yes - slight change until after 2017 | Yes - slight change until after 2017 | Yes - slight change until after 2017 | Yes - slight change until after 2017 | Yes - slight change until after 2017 | Yes - slight change until after 2017 |
| Compatible with County General Plan | Med | No | No | Yes | No | Yes | Yes | Yes | Yes |
| Construction impacts to resources - based on imported rock and gravel (millions of cubic yards) Not Off-site impacts | Low | 6.72 | 11.67 | 85.15 | 7.42 | 53.73 | 93.65 | 79.65 | 100.27 |
| Noise – excess noise generation - based on traffic and placement of imported rock and gravel (millions of cubic yards) | Low | 6.72 | 11.67 | 85.15 | 7.42 | 53.73 | 93.65 | 79.65 | 100.27 |
| New source of light and glare (human and non-human biological impact) | Low | Equal | Equal | Equal | Equal | Equal | Equal | Equal | Equal |

| Non-Mandated Attributes | Rank | Alt 1 | Alt 2 | Alt 3 | Alt 4 | Alt 5 | Alt 6 | Alt 7 | Alt 8 |
|---|---|---|---|---|---|---|---|---|---|
| Traffic increases - construction: number of trucks and employee trips/day | Low | 1050 | 1600 | 2700 | 1560 | 2900 | 3400 | 4200 | 4700 |
| Conversion of agricultural land - | Low | 600 acres | 600 acres | 400 acres | 400 acres | 400 acres | 200 acres | 200 acres | 400 acres |
| Cultural resource protection - in sea bed | Low | No | No | No | No | No | No | No | No |
| Paleontological resource protection- in sea bed | Low | No | No | No | No | No | No | No | No |
| Hazardous materials- based on sea bed disturbance (millions cubic yards) | Low | 77.14 | 136.53 | 18.81 | 154.215 | 86.77 | 66.97 | 33.522 | 47.23 |
| Fish and bird consumption – selenium concentration (meals/month) | Low | #2 | Least - #1 | #3 | Worst - #8 | #7 | #5 | #6 | #4 |
| Geologic hazards – seismic risk, ground failure - based on water contained by berms, barriers, and perimeter dikes (thousands of acre-feet of water) | Low | 78 | 162 | 336 | 324 | 2,069 | 3,142 | 3,098 | 1,545 |
| Risk due to vectors or air-borne disease- based on sea bed disturbance (millions cubic yards) | Low | 77.14 | 136.53 | 18.81 | 154.215 | 86.77 | 66.97 | 33.522 | 47.23 |

| Non-Mandated Attributes | Rank | Alt 1 | Alt 2 | Alt 3 | Alt 4 | Alt 5 | Alt 6 | Alt 7 | Alt 8 |
|---|---|---|---|---|---|---|---|---|---|
| Timing of construction – timing windows | Third tier | Initially start in 2014 Will continue with AQM until 2040 | Initially start in 2014 Will continue with AQM until 2040 | Initially start in 2014 Will continue with AQM until 2040 | Initially start in 2014 Will continue with AQM until 2040 | Initially start in 2014 Will continue with AQM until 2040 | Initially start in 2014 Will continue with AQM until 2040 | Initially start in 2014 Will continue with AQM until 2040 | Initially start in 2014 Will continue with AQM until 2040 |
| Completion of major construction | Third tier | 2027 | 2031 | 2022 | 2038 | 2024 | 2031 | 2024 | 2024 |

ATTACHMENT 1:

**DRAFT AGENDA**

**Salton Sea Process Working Group**

Thursday, October 5, 2006
9:30 am – 3:30 pm
Marriott Ontario Airport
2200 E. Holt Boulevard
Ontario, CA 91761
Ph: (909) 975-5000

Desired Outcomes

- *Recommend a process by October 24, 2006 to the Advisory Committee to identify a Preferred Alternative by the Secretary*
- *Develop a tool to organize information for effective decision-making*

9:30 – 10:00 Call to Order
- Self-Introductions
- Agenda Review

10:00 – 12:00 Review draft PEIR information

12:00 – 1:15 LUNCH

1:15 – 2:30 Review attributes (distributed in advance of meeting), comments received, and revise as needed

2:30 – 3:15 Organizing the matrix for alternative review

3:15 – 3:30 Future Meeting Schedule – Next Steps – Document needs